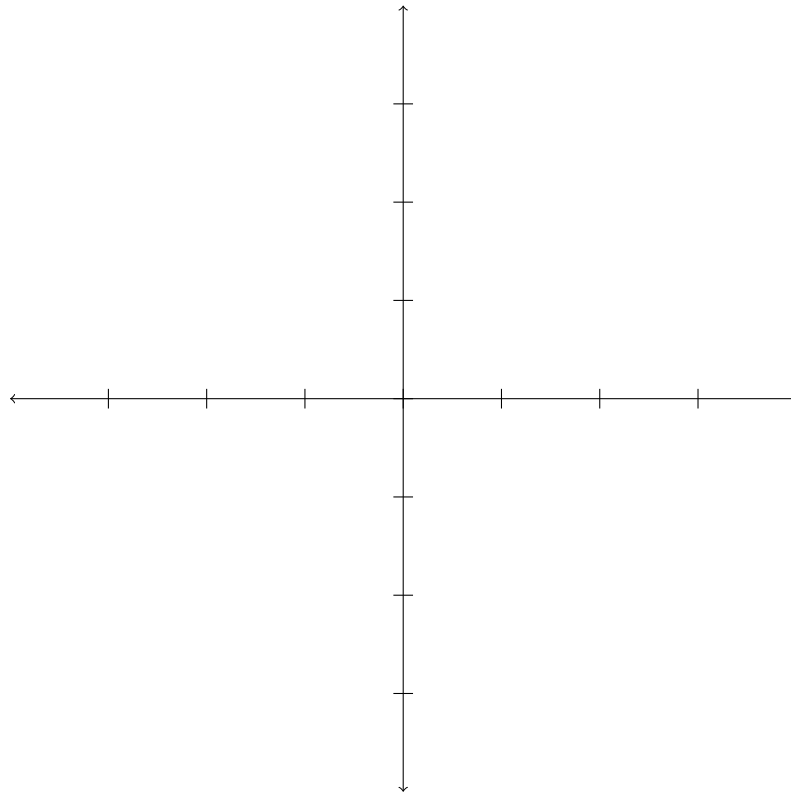


Name _____

Quiz 11

1. Let $f(x) = \frac{x^2 - 1}{x^3 + x^2 - 4x - 4}$

- a) What is the domain of $f(x)$? _____
- b) What are the vertical asymptotes? _____
- c) What is the horizontal asymptote (if any)? _____
- d) Where is the hole? $x =$ _____ $y =$ _____
- e) Where is the y -intercept? _____
- f) Where is/are the zero(s) (or x -intercepts)? _____
- g) Make a sign chart to find when $f(x)$ is positive and negative
(hint: critical points are zeros and vertical asymptotes)
- h) Graph $f(x)$ below



2. Solve for x

a) $\frac{9^3}{27^x} = 1$

$x =$ _____

b) $\left(\frac{1}{32}\right)^2 = \frac{8^x}{2^{(x^2)}}$

$x =$ _____

3. What math class (if any) will you be taking in the fall?

4. What was your favorite part of this class?
